CANADA

NATIONAL ENERGY BOARD
REASONS FOR DECISION

In the Matter of the Application under
Part IV of the National Energy Board Act
(Toll Application)

of

Manito Pipelines Ltd.

December 1982

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(Toll Application)

MANITO PIPELINES LTD.

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Ce rapport est publié
séparément dans les
deux langues officielles

IN THE MATTER of the National Energy Board Act and the Regulations made thereunder; and

IN THE MATTER of an application by Manito Pipelines Ltd. for certain orders respecting tolls pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. 1762-M42-1.

Heard at Ottawa, Ontario on 8, 9 and 10 November 1982.

BEFORE:

J.R. Jenkins	)	Presiding Member
A.D. Hunt	)	Member
J.R. Hardie	)	Member

APPEARANCES:

M.A. Putnam, Q.C.	)	Manito Pipelines Ltd.
E.B. McDougall	)	Dome Petroleum Ltd.
J.T. Graham	)	Husky Oil Operations Ltd.
J.C. Avis	)	Interprovincial Pipe Line Limited
N.J. Schultz	)	National Energy Board

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Abbreviations and Definitions

"AFUDC"	-	Allowance for Funds Used During Construction
"APMC"	-	Alberta Petroleum Marketing Commission
"Base Year"	-	1 January to 31 December 1981
"the Board" "N.E.B."	-	National Energy Board
"Canadian Reserve"	-	Canadian Reserve Oil and Gas Ltd.
"DCF"	-	Discounted Cash Flow
"EOR"	-	Enhanced Oil Recovery
"Husky"	-	Husky Oil Operations Ltd.
"IORT"	-	Incremental Oil Revenue Tax
"Interprovincial"	-	Interprovincial Pipe Line Ltd.
"Manito" "the Company" "the Applicant"	-	Manito Pipelines Ltd.
"Murphy"	-	Murphy Oil Company Ltd.
"NEP"	-	National Energy Program
"NORP"	-	New Oil Reference Price
"Operating Agreement"	-	Agreement dated 1 December 1982 between Manito Pipelines Ltd. (owner) and Murphy Oil Company Ltd. (operator) regarding performance of service by the operator
"OPUAR"	-	Oil Pipeline Uniform Accounting Regulations
"O.D."	-	Outside Diameter
"Test Year"	-	1 October 1982 to 30 September 1983
"U.S."	-	United States of America
"km."	-	Kilometre
"m^3/d"	-	Cubic Metres per Day
"mm"	-	Millimetre

CHAPTER 1

The Application

Manito Pipelines Limited was incorporated in 1975 under the provisions of the Canada Corporations Act. Manito is, pursuant to Certificate OC-31, as amended, the operator of an oil pipeline system which is owned in undivided interest as a joint venture by Murphy Oil Company Ltd. and Canadian Reserve Oil and Gas Ltd. Murphy's share is 52.5 percent and Canadian Reserve's share is 47.5 percent. The pipeline extends from Blackfoot, Alberta to Kerrobert, Saskatchewan, a distance of approximately 184 km.

The pipeline began operations in 1971 but did not come under Board jurisdiction until 1976 when an extension across the provincial border from Dulwich, Saskatchewan to Lone Rock, Alberta was approved. A certificate of public convenience and necessity was issued in November 1976 for both the original pipeline and the extension. In 1978 the Company advised the Board of its desire to seek a toll increase; however, its accounts did not conform to the Oil Pipeline Uniform Accounting Regulations and the Company was not able to make an application under Part IV. Therefore, it was necessary for the Company to restate its accounting records from 1971. This work was further complicated by the need to determine which facilities were under Board jurisdiction as distinct from those under provincial jurisdiction. These matters were not completed until mid-1982.

By application dated 16 July 1982, Manito applied for:

(a) an order pursuant to Part IV of the National Energy Board Act fixing just and reasonable tolls which may be charged for the transportation of crude oil and condensate, and

(b) the necessary authorizations to acquire the pipeline assets from Murphy and Canadian Reserve.

This is Manito's first application for higher tolls. Accordingly, the Board decided to examine the justness and reasonableness of the proposed tolls through a public hearing.

Manito has proposed to acquire, as of 1 January 1983, the pipeline assets now owned by Murphy and Canadian Reserve at the values recorded on the books of the present owners. The acquisition requires the amendment of various Board Orders as well as Certificate OC-31. The Board has now approved the amendment of these Orders and the amendment, subject to Governor in Council approval, of Certificate OC-31. Governor in Council approval is pending.

By Order No. RH-6-82, the National Energy Board set the toll application down for public hearing commencing 8 November 1982.

CHAPTER 2

Rate Base

SUMMARY

Manito submitted a proposed rate base composed of an average cost of assets in service at the beginning and at the end of the test year, 1 October 1982 to 30 September 1983, plus an allowance for working capital.

The acquisition of the assets by Manito will not affect the applied-for rate base. The acquisition of the net assets and deferred income taxes will be recorded in Manito's books at the same values as they appeared on the undivided interest basis.

The Board has, however, made adjustments to the rate base proposed by Manito. They are summarized on Table 2-2 and are explained in detail in this chapter.

The rate base as submitted by the Applicant, adjustments made by the Board, and the rate base as approved by the Board, are summarized in Table 2-1.

PLANT IN SERVICE

Plant Additions

The plant additions to rate base for the period from the end of the base year to the commencement of the test year and for the test year have been approved by the Board. These amounts are consistent with the Class "B" and "C" construction applications submitted by the Applicant and approved by the Board under Part III of the Act.

Allowance for Funds Used During Construction

The Company proposed to calculate AFUDC monthly, without compounding, by applying the rate of return on rate base to the mid-month balance of plant under construction, and to record the credit in Interest on Amounts Due Affiliated Companies (account 421) of the Oil Pipeline Uniform Accounting Regulations.

The Board accepts the Company's proposal for calculating AFUDC, but the amount has been adjusted downward to reflect the approved rate of return on rate base. The Board will, however, require Manito in the future to record any credits for AFUDC in Other Interest (account 417). Accordingly, the Company is required to transfer any amounts already credited for AFUDC in account 421 to account 417.

Deactivated Condensate Line

The Applicant proposed to include in its rate base a deactivated 89 mm outside diameter section of line from Lone Rock to Dulwich, Saskatchewan.

During the hearing the Applicant indicated that it intended to reactivate the 89 mm O.D. line to transport condensate this winter. The 168 mm

Table 2-1

	Per Application	Board Adjustments	Allowed by Board
Plant in Service*	$15,627,000	$ (95,392)	$15,531,608
Accumulated Depreciation *	(3,572,813)	19,778	(3,553,035)
Net Transportation Plant in Service *	$12,054,187	$ (75,614)	$11,978,573
Operating Oil Supply	289,116	-	289,116
Accumulated Deferred Income Taxes	(981,413)	(17,747)	(999,160)
Working Capital Allowance	213,636	(12,698)	200,938
Rate Base	$11,575,526	$(106,059)	$11,469,467

* Average of opening and closing balances.

Table 2-2

Summary of Adjustments

Plant in Service	
- Removal of truck terminals no longer under the Board's jurisdiction	$ (95,392)
Accumulated Depreciation	
- Removal of truck terminals no longer under the Board's jurisdiction	$ 18,378
- Correction of errors in the submission as follows:	
(a) the test year provision for account 160 was shown as $107,766 instead of $102,766 (refer to Depreciation, causing accumulated depreciation at the end of the test year to be overstated by $5,000, and the average accumulated depreciation for the test year to be overstated by	2,500
(b) the test year opening and closing balances of accumulated depreciation were understated by $1,100, causing an average understatement of accumulated depreciation of	(1,100)
	$ 19,778
Accumulated Deferred Income Taxes	
- Removal of truck terminals no longer under the Board's jurisdiction	$ (5,946)
- Other adjustments	(11,801)
	$ (17,747)
Working Capital Allowance	
- Removal of truck terminals no longer under the Board's jurisdiction	$ (5,923)
- Effect of other operating expense adjustments	(6,775)
	$ (12,698)
Net Adjustments	$(106,059)

O.D. line which is presently being used to move condensate to all receipt points, including Dulwich, will be unable to deliver sufficient condensate to Dulwich to blend with the crude oil expected to be tendered during this period.

In view of the Company's plan to use the 89 mm O.D. line in the near future, the Board agrees that this section of line should remain in the rate base.

Non-jurisdictional Assets

The Applicant included in its test year rate base, truck terminals which are not part of the regulated pipeline system but deducted the cost of service, including return, for these truck terminals, from the overall revenue requirement for Manito.

The Applicant stated that, at the time the rate base figures were being compiled, the Company had not received the Board's decision with respect to the jurisdiction over the truck terminals. The Board has removed the cost and related accumulated depreciation of these assets from the rate base for the test year. The Board will also require Manito to transfer the cost of the truck terminals and the related accumulated depreciation from Transportation Plant (account 30) and Accumulated Depreciation (account 31) to Other Plant (account 34) and Accummulated Depreciation (account 35), respectively, as of 31 December 1982.

Line Fill

The Applicant included Operating Oil Supply (account 33) in its test year rate base. A witness for the Company stated that it is normal practice in crude oil gathering systems for the line fill to be provided by the pipeline company and to record it at original cost as a non-depreciable asset of the pipeline company.

The Board has decided to allow the Company to include line fill in the rate base at the original cost of $289,116.

WORKING CAPITAL

Manito proposed to include in the rate base an allowance for working capital composed of a cash portion, calculated as 25 days of operating expenses, plus the average test year balance of the materials and supplies inventory.

In support of the 25 days of operating expenses, the Applicant submitted a lead-lag study which was based on historical data extracted from Murphy's existing joint venture billing system.

The Board recognizes that, subsequent to Manito's acquisition of assets on 1 January 1983, the billing procedure will change so that the historical data used may no longer be representative of future operations and, therefore, may not be an appropriate basis for determining Manito's test year cash working capital. The Board is, however, satisfied that a total of 25 days of operating expenses is not an unreasonable estimate of the Applicant's required cash working capital and has allowed such an amount to be included in the test year allowance for working capital. The amount has been adjusted, however, because of the required changes to operating expenses.

In addition, the Board has approved the Applicant's estimate of average materials and supplies inventory included in the allowance.

The working capital allowance, as submitted by the Applicant and as approved by the Board, is as follows:

Table 2-3

	Per Application	Board Adjustment	Allowed by Board
Materials and Supplies Inventory	$ 68,351	-	$ 68,351
Allowance for Cash Operating Expenses			
25/365 X $2,121,159	145,285	$(145,285)	-
25/365 X $1,935,771	-	132,587	132,587
	$ 213,636	$ (12,698)	$ 200,938

DEFERRED INCOME TAXES

Deferred Tax Balance

The deferred income tax balance, which is deducted in arriving at the allowed rate base, is the average of the opening and closing deferred tax balances for the test period. This has been computed as indicated in Table 2-4.

The deferred taxes for the test period are calculated by multiplying the tax rate by the net of the timing differences.

The net timing differences are calculated as indicated in Table 2-5.

Transfer of Assets

On 1 January 1983, the assets of the Manito pipeline system will be transferred to the Applicant at their original cost less accumulated depreciation. However, for income tax purposes, the assets will be transferred at their undepreciated capital cost pursuant to the provisions of subsection 85(1) of the Income Tax Act. Consequently, the remaining capital cost allowance available in calculating the income taxes of the Applicant will not change, as a result of the transfer, from that which would have been available to the former joint interest owners.

Since the undepreciated capital cost is less than the depreciated value of the assets, the difference will not be available as a tax deduction to Manito. However, to offset this deficiency, the accumulated deferred tax balance associated with these assets will also be transferred. These deferred taxes represent income taxes that were previously collected in the tariff in excess of the amount of taxes that would have been paid if the Applicant had been a tax paying entity and the regulated operations its only business.

These funds will, thus, remain available to the Applicant. The Applicant stated that the tax benefits associated with these assets are accounted for in the deferred tax balance and that all these tax benefits will be transferred to Manito Pipelines Ltd.

The Board is satisfied that, taking into account the transferred deferred tax balance, the full value of the cost of the assets will be available in calculating Manito's income taxes for toll purposes.

Table 2-4

Beginning deferred tax balance	$ 755,071
Deferred taxes for the test period	488,177
Ending deferred tax balance	$1,243,248
Average of beginning and ending deferred tax balances ($755,071 + $1,243,248) ÷ 2 =	$ 999,160

Table 2-5

	Per Application	Allowed By Board
Amortization of Rate Hearing Expenses	-	$ 100,000
Depreciation	$ 497,710	488,966
Total Estimated Toll Hearing Expenses	-	(203,896)
Capital Cost Allowance	(1,375,485)	(1,374,485)
Net Timing Differences	$ (877,775)	$ (989,415)

CHAPTER 3

Cost of Service, Excluding Return and Income Taxes

SUMMARY

The cost of service, excluding return and corporate income taxes, as submitted by the Applicant and as approved by the Board, is summarized in Table 3-1. Comments on the adjustments appear in succeeding subsections of this chapter.

OPERATING EXPENSES

Costs of Non-jurisdictional Assets

As outlined in Chapter 2, the assets associated with the Kerrobert and Unity truck terminals, as well as their operating expenses and depreciation, have been removed from each of the appropriate components of Manito's revenue requirement. The required adjustment to operating expenses is as follows:

Table 3-2

Salaries and Wages	$(59,385)
Materials and Supplies	(2,764)
Outside Services	(11,459)
Other Expenses	(2,696)
Employee Benefits	(8,908)
Insurance	(169)
Taxes, Other than Income Taxes	(1,095)
Total Adjustment for Truck Terminals	$(86,476)

Wages, Salaries and Employee Benefits

All work on the pipeline is performed by Murphy employees pursuant to the Operating Agreement. The Board noted that Murphy granted substantial wage and salary increases during 1981. The Applicant escalated the 1981 base year amount for salaries and wages by five percent for 1982 and by a further eight percent for 1983. The latter consists of a five percent general economic increase, one percent for merit and two percent for progression of employees in training.

For the test year, four full-time employees have been provided to staff the Company's new control centre. In the Applicant's view, these operators will be required to run the control centre 24 hours a day with one operator per shift. Two of these operators are expected to come from existing staff. The remaining two are expected to be hired when operations begin in late 1982. From the base year to the test year, the staff will be increased by one person-year. The Applicant requires a total of 17 persons during the test year.

No changes with respect to employee benefits were projected between the base year and the test year. Benefits were calculated in each year as 15.5 percent of wages and salaries paid. This assumes that vacation days and statutory holidays are considered as regular working days. If vacation days and statutory holidays were included under "Employee Benefits", benefits would increase to 23 percent of total wages and salaries paid.

It is the Board's view that the wage and salary escalation rates for 1982 and 1983 are reasonable and in compliance with the federal government's wage restraint program introduced in the budget of 28 June 1982. The Board accepts Manito's reasons for staff additions in the test year as well as its cost of employee benefits.

Materials, Supplies and Outside Services

The Applicant projected price escalation factors for materials and supplies of 13 percent for 1982

Table 3-1

	Operating Expenses	Depreciation
Per Application	$2,121,159	$497,710
Board Adjustments:		
-correction of error		$ (5,000)
-truck terminals	$ (86,476)	(3,744)
-insurance	(1,950)	
-taxes, other than income taxes	(2,962)	
-rate hearing costs	(94,000)	
Total Adjustments	$ (185,388)	$ (8,744)
Allowed by Board	$1,935,771	$488,966

and 8 percent for 1983. The projection for 1982 was selected for budget purposes in late 1981. Manito stated that prices for materials and services were generally fixed by its suppliers at the beginning of 1982 and that it could not see any evidence that would lead to a revision of its 1982 projection.

Although the base year amount of outside services was escalated by 13 percent on an annual basis for the first 9 months of 1982, Manito stated that such costs were expected to be lower in the latter part of 1982 primarily because of weakened demand for these services. Therefore, in determining the test year amount of outside services, the Company increased the 1981 base year amount by 8 percent on an annual basis for the last 3 months of 1982 and a further 6.5 percent for the first 9 months of 1983.

The Board believes that Manito's price escalation factors for materials and supplies and outside services for 1982 and 1983 are reasonable.

Charges Pursuant to Operating Agreement

In its submission, the Applicant included cost estimates which were calculated in accordance with the provisions of the new Operating Agreement between the owner (the Applicant) and the operator (Murphy). These estimates included charges for overhead, direct head office expenses, and various warehousing costs. These estimates appear to be reasonable and the Board has accepted them for inclusion in the test year cost of service. The actual expenses incurred for these items, however, will be monitored by Board staff in their ongoing surveillance of Company records.

Toll Hearing Expenses

In its application, Manito estimated its toll hearing costs to be $194,000. After the conclusion of the Hearing, the Applicant updated this estimate to $203,866 and indicated that actual expenditures could differ slightly since it had not yet received all of the billings related to the Hearing.

Since the tolls resulting from this Hearing are likely to be in effect for more than one year, the Board has decided that it is equitable to spread the Company's toll hearing expenses beyond the test year. The Board, therefore, directs that $100,000 of toll hearing costs be expensed in the test year, with the balance of costs actually incurred to be written off equally over the next two twelve-month periods commencing 1 October 1983. This will reduce the test year cost of service by $94,000.

Insurance and Taxes, Other than Income Taxes

During the Hearing it was ascertained that the amounts included in Manito's application for Insurance and Taxes, Other than Income Taxes, for the test year represented the forecast of actual 1983 expenditures for these items. In order to reflect the fact that the test year comprises three months in 1982 and nine months in 1983, the Board has made adjustments as outlined in Table 3-3.

DEPRECIATION

The Applicant has used rates of 5 percent and 10 percent in calculating the test year depreciation provisions for Communications Systems (account 163) and Vehicles and Other Work Equipment (account 185), respectively. These rates are consistent with rates approved for similar assets of other pipeline companies.

The Board accepts them and notes that the Applicant has undertaken to submit a formal application to the Board for approval of depreciation rates for the assets in question. The Board has approved the Applicant's depreciation provision for the test year with the following exceptions.

In the application, the depreciation provision for Other Station Equipment (account 160), was shown as $107,760 for the test year. In response to an information request, the Applicant stated that the correct provision for this account should be $102,760. The Board has, accordingly, adjusted the depreciation provision downward by $5,000.

In conjunction with the removal of the Kerrobert and Unity truck terminals from the rate base (see Chapter 2), the related depreciation expense has been removed from the cost of service, in the amount of $3,744.

Table 3-3

	Per Application	Board Adjustments	Allowed by Board
Insurance	$ 25,178	$(1,950)	$ 23,228
Taxes, Other than Income Taxes	$150,000	$(2,962)	$147,038

CHAPTER 4

Income Taxes

NORMALIZED INCOME TAXES

The Applicant has used the normalized method of calculating the income tax provision in the past and proposes to do so in the test year. In the circumstances of this case, the Board considers the use of this method to be appropriate for the test year.

The income tax provision that the Applicant is authorized to include in its cost of service for the test year is calculated in Table 4-1.

TAXES ON INCOME FROM NON-JURISDICTIONAL ASSETS

The income tax provision included in the applied-for cost of service reflected both the Company's regulated and non-regulated operations. In calculating the revenue requirement for the regulated operations, the Applicant reduced its total cost of service by the revenue requirement related to the non-regulated operations. As a result, the income tax provision included in the applied-for cost of service related only to the income from jurisdictional assets.

The Board is satisfied that this method recognized an adjustment with respect to the income tax provision related to the non-jurisdictional assets and is consistent with the Board's income tax calculation as presented in Table 4-1.

INCOME TAX RATE

The Applicant used an overall tax rate of 50.47 percent derived as shown in the following table:

Table 4-2

	%
Federal Corporate Tax	36.00
Composite Provincial Tax	13.34
Tax rate (excluding corporate surtax)	49.34
Federal Corporate Surtax	1.13
Total Tax Rate	50.47

Table 4-1

Provision for Income Taxes

Utility Income After Tax (.0656 x $11,469,467)	$ 752,397
Eligible Capital Expenditures	2,689
Normalized Utility Income After Tax	$ 755,086
Utility Income Tax Provision (excluding Surtax) $755,086 x $\frac{.4934}{.5066}$	$ 735,411

Income Taxes Payable (excluding Surtax)

Normalized Utility Income After Tax	$ 755,086
Utility Income Tax Provision	735,411
Amortization of Rate Hearing Expenses	100,000
Depreciation	488 966
Total Estimated Rate Hearing Expenses	(203,896)
Capital Cost Allowance	(1,374,485)
Taxable Income	$ 501,082
Federal Part I Tax Payable ($501,082 x .36)	$ 180,390
Provincial Income Tax Payable ($501,082 x .1334)	66,844
Total Income Taxes Payable	$ 247,234

The Board accepts this rate subject to the adjustment outlined below.

The Applicant included, as part of its normalized income tax provision, the Federal Corporate Surtax. This surtax, which was introduced in 1979 to apply to the 1980 and 1981 taxation years, was extended for two more years as a result of the November 1981 budget. The surtax is calculated on the Federal Part I taxes payable.

The Board recognizes the surtax was instituted as a temporary measure in 1979 and may not form part of the overall tax rate in the future. Since the surtax is based on the Federal Part I taxes payable, the Board does not believe that the surtax should form part of the Applicant's normalized income tax provision, but rather that a separate calculation of the surtax should be made. Accordingly, the Board has reduced the income tax rate by 1.13 percent and is allowing a separate amount for the surtax, calculated on the taxes payable.

Table 4-3

Revenue Requirement to Cover Corporate Surtax

(1) Corporate Surtax = Part I Taxes Payable x Corporate Surtax Rate

= $180,390 x .03125

= $ 5,637

(2) Revenue Requirement to Cover Corporate Surtax Provision = Corporate Surtax

$$+ \text{Corporate Surtax} \times \frac{\text{Tax Rate}}{\text{1-Tax Rate}}$$

$$= \$\,5{,}637 + \$5{,}637 \times \frac{.5047}{.4953}$$

=$ 5,637 + $5,744

=$11,381

CHAPTER 5

Return

CAPITAL STRUCTURE

In its revised submission, the Company applied for the following deemed capital structure and rates of return for the test year ending 30 September 1983.

Table 5-1

	Ratio (%)	Cost Rate (%)	Cost Component (%)
Long-Term Debt	45.0	17.25	7.76
Common Equity	55.0	17.00	9.35
Total	100.0		17.11

The deemed capital structure requested by the Applicant was initially developed by the Company's expert witness because the Applicant was owned in undivided joint interest by Murphy and Canadian Reserve and did not have an identifiable capital structure of its own. The capital structure reflects proportions of debt and equity financing which the witness felt to be consistent with the business risks confronting the Company's regulated pipeline operations.

In its application, Manito indicated that, effective 1 January 1983, its operating status will evolve from that of a joint venture into a separate operating corporation. The existing joint venture partnership is to be dissolved, and Manito will purchase the assets of the regulated pipeline system as well as the non-regulated assets. After the transfer of assets, the actual capital structure of Manito's total operations is projected to comprise 58.7 percent debt and 41.3 percent equity. However, a witness for the Applicant asserted that the Board should not have regard to the overall actual capital structure that results from financing both regulated and non-regulated assets when considering the capital structure which should be used for rate-making purposes. Rather, the Company maintained that the Board should have regard to only the proportions of debt and equity funds (45 percent and 55 percent, respectively) which it asserted constituted the means by which the acquisition of that portion of its total assets regulated by the Board would be accomplished. The Company further stated that such an approach would be consistent in result with the deemed capital structure proposed by its expert witness. The Company stated that it intended to finance entirely through debt the acquisition of the non-regulated assets. However, it was not able to identify any significant difference in risk between the regulated and the non-regulated assets.

The Applicant's expert witness based his proposed deemed capital structure on a comparative risk analysis and on his review of certain previous Board decisions, from which he concluded that Manito faces greater business risk than most major crude oil pipelines in Canada. He contended that Manito faces greater business risks because of competition in both its export and domestic markets, potential federal government insensitivity in establishing levels of oil export taxes, a fluctuating demand for its product, and certain problems in obtaining an adequate supply of heavy crude oil for delivery.

Company witnesses testified that Manito faces direct competition from Husky in both export and domestic markets. It was also noted that a major U.S. refiner, which accounts for some 50 percent of the Applicant's total sales, now has an alternative supply source from the United States Gulf Coast with the completion of the Wood River pipeline, and that this would cause those sales to become relatively more price sensitive. It was acknowledged, however, that Husky production presently moves through the Manito system due to a capacity problem on the Husky line and that the Wood River pipeline has not to date been used to convey an alternate supply of crude oil. Cross-examination also revealed that crude oil shipped on the Manito system presently maintains a price advantage in export markets over foreign crude and that the Company believes any increase in its tariff with respect to export sales would be offset by an appropriate reduction in the export tax.

With respect to the potential for federal government insensitivity in monitoring the export market and establishing suitable levels of export tax, the expert witness agreed that this is a risk that would apply to any company in that export market. It was also agreed that there is nothing that would suggest that the federal government has been insensitive historically with regard to the effects of taxes on export sales.

As for the fluctuating demand for its product, the expert witness contended that, in comparison with

other pipelines which ship mainly light crude oil, the market for the Applicant's heavy crude oil was seasonal, being used primarily in the summer for the production of asphalt, and highly volatile because of budgetary fluctuations affecting government road building and repairs. He agreed, however, that seasonal demand does not necessarily indicate annual sales variability and hence, greater business risk. The witness also stated that he had not examined the annual sales records of Manito to determine sales variability as, in his view, data were not available for an adequate period of time.

The expert witness stated that problems of uncertainty of supply related to possible shortages of diluents, Saskatchewan heavy oil production being significantly reduced by the effects of the National Energy Program, and significant technical uncertainties concerning enhanced recovery mechanisms for heavy oil. However, another witness indicated that Manito's overall condensate forecast had recently been revised and that condensate supplies will be sufficient for the foreseeable future. Company officials also testified that its crude oil supplies have historically been adequate to meet demand and that recent federal and provincial actions to bring about an increase in the production of Canadian heavy crude oil (such as reductions in provincial royalties and a one-year moratorium on the introduction of the Federal Incremental Oil Revenue Tax) have eased the tight supply situation.

The Company's expert witness indicated that the average capital structure of the Canadian crude oil pipelines he examined was approximately 40 percent debt and 60 percent equity. However, he noted that the removal from the group of Trans Mountain Pipe Line Company Ltd., which he cited as having an unusual capital structure of 100 percent equity, reduces the average equity ratio for the crude oil pipelines from 60 percent to 41 percent.

Based on the evidence put forward in respect of the Applicant's operations, it would appear to the Board that Manito does not face significantly greater business risks than those other major crude oil or product pipelines with which the Company's expert witness drew comparisons. Also, the Board does not consider it appropriate to deem a capital structure for the Company's regulated operations which would implicitly contain all of the Company's equity financing but only part of its debt financing. The Board believes that the unregulated assets are of the same risk as the regulated assets and they too would require some measure of equity financing.

The evidence indicated that an actual capital structure comprising approximately 59 percent debt and 41 percent equity will exist as of 1 January 1983 for the Company's entire operation. This capital structure is forecast to remain in place for the balance of the test year, approximately 9 months. Consequently, the Board has decided that, for the purposes of establishing a just and reasonable rate of return, the rate base be considered to be financed in the proportions of 59 percent debt and 41 percent equity. The individual cost rates associated with these two forms of capital are discussed below.

COST OF DEBT

The Applicant applied for 17.25 percent as the cost rate for debt. The rate was based on an estimate of the prospective prime commercial rate plus a risk allowance of one percentage point. The rate was determined by taking the weighted average of 16.5 percent applicable to 3 months of the test year in 1982 and 17.5 percent applicable to 9 months of the test year in 1983. A Company witness contended that the use of this prospective short-term rate was appropriate because the owners, Canadian Reserve and Murphy, are to finance the debt portion of Manito's capital structure until the Company improves its earnings position sufficiently to be able to do its own borrowing.

Cross-examination revealed that, while the owners are to be compensated for loans made to Manito at the prime rate plus one percentage point, they will obtain these funds at a somewhat lower rate. The Company witness' contention that the partial percentage point difference would be appropriate compensation for assumption of risk was not supported, as testimony indicated that there is no identifiable change in the owners' risk with respect to the enterprise in its proposed new form as compared to its existing form.

During the course of the Hearing, Company officials amended Manito's estimated test year cost of debt based on recent trends in interest rates. The cost of debt, as revised by the Applicant, was 14.75 percent for the entire test year, being based on an estimated prime rate of 13.75 percent plus one percentage point.

The evidence indicated that a cost rate for debt related to a short-term prime rate is reasonable given the expected short-term debt financing by owners. However, there is no apparent justification to support reimbursing the owners above what they pay for funds loaned to Manito. Consequently, based on Manito's projection of the

owners' short-term cost of debt during the test year, the Board has decided that 14.25 percent represents a fair and reasonable cost rate.

RATE OF RETURN ON EQUITY

The Applicant requested that it be allowed a rate of return on equity of 17 percent. This rate was based on the findings of its expert witness whose combined views as to the business risks, appropriate capitalization ratios and discounted cash flow costs of capital to companies of comparable risk led him to recommend a rate of return on equity of about 17 percent.

In attempting to measure the opportunity cost, the witness endeavoured to identify a group of companies exhibiting combined business and financial risks comparable to those of Manito. The group of comparable companies selected was based on the witness' view that Manito's investment risk is only slightly less than that of an average industrial.

The witness then applied the DCF method to the companies which, in his view, have risks comparable to Manito, in order to determine an appropriate cost of equity capital. The data employed in this DCF determination were derived for a series of time periods ending in 1981 and 1982.

First, historical growth in dividends was determined, resulting in both five- and ten-year annual growth rates in dividends per share. The witness' final estimated dividend growth rate based on these data ranged from 10.07 to 10.70 percent. Second, dividend yields for each comparable company were calculated based on data from early 1982 and resulted in an estimated dividend yield of 6.6 percent. No consideration was given to more recent trends in dividend yields for the group of comparable companies.

During cross-examination, the witness agreed that expected growth in both dividends and dividend yields is influenced by anticipated rates of inflation and that, if the rate of inflation were to continue to decline, expectations with respect to rates of return on equity would tend to decline as well.

Also, with respect to the screening procedure employed in constructing his sample of comparable companies, the witness stated that he had excluded companies having less than a ten year history of continuous financial data ending in 1981, and all companies that did not pay dividends continuously over the same period. He agreed that, by imposing these restrictions, the results of his study were biased in an upward direction because the companies in his sample, on average, had achieved substantial earnings levels in the ten year period.

Based upon its consideration of all the evidence presented and having regard to its decision in respect of the common equity ratio, the Board finds 16.00 percent to be a fair and reasonable rate of return on equity.

RATE OF RETURN ON RATE BASE

Based upon all its findings in this case, the Board has decided that a rate of return on rate base of 14.97 percent is fair and reasonable. The derivation of this rate of return is shown below:

Table 5-2

	Ratio %	Cost Rate %	Cost Component %
Long-Term Debt	59.0	14.25	8.41
Common Equity	41.0	16.00	6.56
	100.0		14.97

CHAPTER 6
Total Cost of Service/Revenue Requirement

The following table presents a summary of the requested cost of service, Board adjustments, and the approved cost of service/revenue requirement.

Table 6-1

	Per Application	Board Adjustments	Allowed by Board
Operating Expenses	$2,121,159	$(185,388)	$1,935,771
Depreciation	497,710	(8,744)	488,966
Return	1,980,572	(263,593)	1,716,979
Income Tax Provision	1,080,882	(345,471)	735,411
Corporate Surtax Provision	24,755	(13,374)	11,381
Unadjusted Total	$5,705,078	$(816,570)	$4,888,508
Cactus Lake Pipeline	(210,336)	210,336*	-
Truck Terminals	(110,748)	110,748**	-
Adjusted Total	$5,383,994	$(495,486)	$4,888,508

* The proposed revenue to be collected for terminalling services provided at Kerrobert to shippers on the Cactus Lake pipeline has been included in the revenue requirement allowed by the Board and the cost of providing this service has been included above.

** The removal of the cost of service associated with the truck terminals has been reflected in Board Adjustments for each of the above revenue requirement components.

CHAPTER 7

Toll Design

CHARACTERISTICS OF SYSTEM

Manito's regulated pipeline system consists of four main components: (1) a terminal at Kerrobert, (2) a pipeline to deliver condensate from Kerrobert to seven crude oil receipt points, (3) blending facilities at each receipt point, and (4) a pipeline to deliver the heavy crude oil blend to the Kerrobert terminal.

Condensate, which is received by Manito from Interprovincial Pipe Line Limited, is stored at the Kerrobert terminal. It is subsequently either transported in the condensate line from the terminal to the various receipt points on the regulated system, as needed, or delivered into the condensate line of the Cactus Lake pipeline system. The Cactus Lake line is outside of the Board's jursidiction.

At each receipt point, condensate, which acts as a diluent, is injected into the blending facilities in sufficient quantity to enable the heavy crude oil to be transported in the blend line from the receipt point to the Kerrobert terminal. This blended crude oil, along with that received from the Cactus Lake line, is stored in the blend tanks at the Kerrobert terminal. While this oil is in the blend tanks, the Company makes a final injection of condensate to bring the crude oil blend up to Interprovincial's prescribed specifications This blend is later delivered to Interprovincial for export to the United States or delivery to Eastern Canada.

A system map indicating receipt points is shown in Appendix III of this report.

THROUGHPUT

Supply

Manito serves the Lloydminster oil producing area of Alberta and Saskatchewan as well as areas along the pipeline route to the Manito terminal near the Interprovincial Pipe Line station at Kerrobert, Saskatchewan. In addition, crude oil trucked from surrounding fields enters the system at the Blackfoot, Lone Rock, Unity, and Kerrobert terminals.

As shown in the application, actual throughputs of heavy crude oil were 2 670 m^3/d in 1981. The Applicant forecasted throughput volumes of 3 000 m^3/d, 3 500 m^3/d and 4 000 m^3/d for 1982, 1983 and 1984, respectively.

The Applicant also provided estimates of maximum supply volumes available to the pipeline for the years 1981 to 1983, and indicated that its 1982 and 1983 estimates are likely to be low as a result of a recent improvement in the production climate.

The Applicant's supply projections are based on proven reserves only and do not include supply from forecast reserve additions. It was the Applicant's opinion that the general Lloydminster area has an adequate supply base, in terms of reserves and producibility, to support projected pipeline throughput for the next two years.

The Applicant qualified its supply projections by referring to factors that had had an adverse effect on supply in the past and that posed potential problems for the future. Production costs, particularly as applied to Enhanced Oil Recovery programs, are substantially higher than for conventional light oil production. In the opinion of the Applicant, this factor, combined with the taxation features of the NEP and high provincial royalties and taxes, led to significant volumes of Saskatchewan heavy crude oil being shut in. The Applicant went on to say, however, that new federal and provincial government incentives such as the federal New Oil Reference Price, the one-year incremental oil revenue tax holiday commencing in June 1982, and royalty rate rollbacks in both Alberta and Saskatchewan had considerably improved the outlook for increased heavy oil production from the Lloydminster area. In general, the Applicant believed that improved producer netbacks in both Alberta and Saskatchewan are now sufficient to make heavy crude oil production economically attractive. Increased incentives with respect to EOR projects should marginally contribute to supply of heavy crude in the future.

Heavy crude oil requires a light hydrocarbon diluent to be added to enable the heavy oil to be transported in conventional pipeline systems. The Applicant stated that the availability of diluent had been a major constraint in the past and that diluent could be in short supply in the future. In the winter of 1981-82, one-third of the Applicant's producing wells were shut in owing to market availability and diluent supply problems. Currently Manito uses condensate exclusively as

the diluent and the bulk of the requirements is obtained from Alberta, with shortfalls made up by independent suppliers. The Applicant provided a forecast of diluent requirements for 1982 and 1983 to support projected pipeline throughputs. The diluent requirements in 1983 will be 294 920 cubic metres, which is a 42 000 cubic metre or a 17 percent increase over the 1982 requirement of 252 690 cubic metres.

The disposition of condensate is controlled by the Alberta Petroleum Marketing Commission. The APMC had declared that Alberta refinery requirements and requirements for blending of heavy oil produced in Alberta would have to be met before the remaining supply would be allocated to ex-Alberta users on a historical take basis. The Applicant stated, however, that recently the priority structure of the APMC controlled condensate has changed significantly, and the APMC has given diluent requirements for Saskatchewan heavy oil a higher priority than condensate supply to Alberta refiners. As of 1 January 1983, 2 250 m^3/d of condensate will be made available to move Saskatchewan heavy oil. The Applicant was unable to provide a breakdown of its share, but it was virtually assured that it would have adequate condensate to meet its diluent needs during the test year.

In the event of a condensate shortage, the Applicant has considered other diluent alternatives, including the use of light crude oil and naphtha. The Applicant admitted that these alternatives were not entirely satisfactory because of the larger volumes required and the added costs. Finally, the Applicant conceded that, if a satisfactory alternative could not be found, then the only remaining choice would be to shut in heavy crude oil production.

The Applicant concluded that the outlook for heavy oil production had improved with the lessening of the problems which reduced throughputs in the past few years. Higher netbacks achieved through NORP, recent improvements in short term royalty and tax relief, incentives to EOR and improved condensate supply had contributed to this improvement. The Applicant expected that these factors would provide for continued supply at levels required to satisfy projected market requirements.

The Board agrees with the Applicant that the general Lloydminster area has an adequate supply base in terms of reserves and producibility to support projected pipeline throughputs for the next two years. The Board also agrees that development of this supply base has been constrained in recent years, particularly in Saskatchewan. The Board believes that new provincial and federal incentives such as NORP prices, reductions in provincial royalties, short term reductions in taxes, and EOR incentives have substantially improved producer netbacks, all of which make the prospects for sustaining or expanding the heavy crude oil supply base in the Lloydminster area more favourable now than in 1981.

Current requirements for condensate to sustain maximum producibility in Saskatchewan amount to approximately 2 400 m^3/d. Almost all of this is assigned to three pipelines: Husky, Manito, and Cactus Lake. The Board notes the Applicant's statement that the APMC is planning to make 2 250 m^3/d of condensate available to Saskatchewan heavy oil producers in 1983. This would leave an insignificant volume of condensate to be purchased from other sources. Under these circumstances, the Board believes that the Applicant will obtain sufficient condensate to meet its diluent requirements for 1983.

Markets

Manito has stated that the market for heavy crude has been unstable. In this regard, information was submitted by the Applicant on factors influencing the demand for heavy crude oil, both in Canada and the U.S. These factors affected not only the production but marketability of heavy crude oil, which in the case of Manito, was primarily the Lloydminster type blend crude oil. It was stated that about 85 percent of the Lloydminster type blend crude oil transported in the Manito pipeline was exported to the U.S. with the balance being consumed in Canada.

Under cross-examination, the Applicant stated that the increase in tolls applied for would not reduce the well-head price of Lloydminster type crude oil; the tariff increase would be an "add-on" to the well-head price to obtain a new price at the Kerrobert Terminal. In order to maintain the competitiveness of this crude oil in the export market, the Applicant stated that the increased cost may have to be offset by a reduction in the export charge, in which case the increase would be borne by the provincial and federal governments. The increased cost of this oil in the domestic market would be borne in the first instance by Canadian refiners.

The Board believes that markets exist in the Northern Tier States of the U.S. and also in Canada to substantiate the throughput projections of Manito.

DETERMINATION OF TOLLS

The Company proposed to divide its pipeline system into five distinct zones for toll design purposes. The receipt points at Dulwich, Furness, and Lone Rock were combined into one zone. The other zones each comprise a single receipt point.

The toll design method proposed by the Applicant involved the following steps:

(1) The total revenue requirement for the test year was reduced by removing the cost of service of the non-jurisdictional truck terminals and deducting the expected revenues to be received for terminalling services provided at Kerrobert to shippers on the Cactus Lake line.

(2) The net revenue requirement so determined above was then allocated based on a functionalization of rate base and cost of service between terminalling services provided at Kerrobert (terminalling function) and services provided on the remainder of the regulated pipeline system (transportation function).

(3) The Company allocated portions of the terminalling and transportation revenue requirements to condensate shipments based on a condensate to undiluted crude oil ratio of 0.3 to one. This ratio reflects the average volume of condensate required to bring the undiluted heavy crude oil up to Interprovincial's specifications at the Kerrobert terminal.

(4) The condensate and undiluted crude oil terminalling and transportation revenue requirements were allocated to each zone receipt point. The terminalling function revenue requirements were allocated to each receipt point on a volumetric basis while the transportation function revenue requirements were allocated on the basis of cubic metre kilometres.

(5) The condensate toll for a given receipt point was determined by dividing the sum of the condensate terminalling and transportation revenue requirements apportioned to that zone by the total volume of condensate deemed to be delivered to that zone. The undiluted crude oil toll for the same receipt point was determined by dividing the sum of the undiluted crude oil terminalling and transportation revenue requirements apportioned to that zone by the volume of undiluted heavy crude oil delivered to the zone.

A unique feature of this toll design is that it results in separate but identical tolls being applied to the shipments of condensate from the Kerrobert terminal to a given zone and to the shipments of undiluted crude oil from that same zone to the Kerrobert terminal.

The Board is satisfied that the Applicant's proposed method of apportioning the transportation function revenue requirement to the various receipt points is equitable. The determination and allocation of the approved transportation function revenue requirements to the receipt points are shown on page 2 of Appendix II.

The Board will, however, require the Company to determine a separate terminalling charge to be applied to all volumes terminalled into the blend tanks at Kerrobert, including the heavy crude oil blend received from the Cactus Lake line. The terminalling charge will be determined as shown on page 1 of Appendix II. The revenues collected from this charge shall be shown separately in the Company's accounting records.

In indicating its acceptance of the Company's proposed toll design, as modified by the Board, it is noted that Murphy will, in all probability, remain the sole shipper on the pipeline for at least the test year. At any time that it becomes evident to the Board that other shippers intend to use the pipeline, this methodology may be reviewed.

The tolls approved by the Board compare with those proposed by the Applicant as per Table 7-1.

The approved tolls are set out in Appendix I. The Board finds these tolls to be just and reasonable and is of the opinion that they satisfy the requirements of Section 52 of the NEB Act and that they will not result in unjust discrimination within the meaning of Section 55.

Table 7-1

(Tolls in $\$/m^3$)

Receipt Point*	Condensate: Proposed by Applicant	Condensate: Approved by Board	Undiluted Crude Oil: Proposed by Applicant	Undiluted Crude Oil: Approved by Board
Blackfoot	5.72	5.01	5.72	5.01
Dulwich	4.85	4.25	4.85	4.25
Furness	4.85	4.25	4.85	4.25
Lone Rock	4.85	4.25	4.85	4.25
Neilburg	4.20	3.67	4.20	3.67
Unity	2.53	2.21	2.53	2.21
Kerrobert	0.78	0.67	0.78	0.67

* The Kerrobert terminalling charge has been included in the tolls for all receipt points north of the Kerrobert terminal.

CHAPTER 8
Disposition

Order No. TO-3-82, which is shown as Appendix I, was predicated upon these Reasons for Decision. The foregoing chapters, together with the above Order, constitute our Reasons for Decision and our Decision on the application by Manito Pipelines Ltd. pursuant to Part IV of the NEB Act.

J.R. Jenkins
Presiding Member

A.D. Hunt
Member

J.R. Hardie
Member

NATIONAL ENERGY BOARD — CANADA — OFFICE NATIONAL DE L'ÉNERGIE

ORDER NO. TO-3-82

IN THE MATTER of the National Energy board Act and the regulations made thereunder; and

IN THE MATTER of an application by Manito Pipelines Ltd. (hereinafter called "the Company") for certain orders respecting tolls pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. 1762-M42-1.

BEFORE:

J.R. Jenkins Presiding Member	)	
A.D. Hunt Member	)	on Thursday, the 23rd day of December, 1982
J.R. Hardie Member	)	

UPON an application dated the 16th day of July 1982, filed by the Company under Part IV of the National Energy Board Act, for orders fixing the just and reasonable tolls the Company may charge for or in respect of the transportation of crude oil and condensate and for such further order or orders as will enable the Company to file a tariff containing tolls which are just and reasonable;

AN UPON the Board having heard the evidence and submissions relating to the said application at a public hearing which commenced on the 8th day of November 1982.

IT IS ORDERED THAT:

1. The Company shall charge the tolls specified in Schedule "A" hereto.

AND IT IS FURTHER ORDERED THAT:

2. The Company shall forthwith file with the Board and serve upon all parties to the hearing of this application a new tariff conforming to this Order.

.../2

3. Notwithstanding the filing of the said new tariff, the same shall remain suspended and be of no effect until the 1st day of January, 1983.

4. Those provisions of the Company's tariff or portions thereof which are contrary to any provisions of the National Energy Board Act, or to any Order of the Board, including this Order, are hereby disallowed, such disallowance to be effective on the 31st day of December, 1982.

NATIONAL ENERGY BOARD

G. Yorke Slader

G. Yorke Slader
Secretary

SCHEDULE A

MANITO PIPELINES LTD.
TOLLS EFFECTIVE 1 JANUARY 1983
IN DOLLARS PER CUBIC METRE AT 15°C

RECEIPT POINTS*	CONDENSATE	UNDILUTED CRUDE OIL
Blackfoot	5.01	5.01
Dulwich	4.25	4.25
Furness	4.25	4.25
Lone Rock	4.25	4.25
Neilburg	3.67	3.67
Unity	2.21	2.21
Kerrobert	0.67	0.67

* The Kerrobert terminalling charge has been included in the tolls for all receipt points north of the Kerrobert terminal.

KERROBERT TERMINAL

DETERMINATION OF TERMINALLING CHARGE

1. Kerrobert Terminal Revenue Requirement = $1,001,621*

2. Volumes Terminalled at Kerrobert

			m^3
Condensate Volumes(1)	:	Manito Line	284 145
	:	Cactus Lake Line	62 162
	:	Total	346 307
Crude Oil Volumes(2)	:	Manito Line	947 166
	:	Cactus Lake Line	207 208
	:	Total	1 154 374
Total Condensate and Crude Volumes			1 500 681

(1) Condensate volumes terminalled into blend tanks at Kerrobert terminal.

(2) Undiluted crude oil volumes terminalled into blend tanks at Kerrobert terminal from the blend lines of Manito and Cactus Lake.

3. Terminalling Charge = $1,001,621 ÷ 1 500 681 m^3
= $0.6674
= $0.67 (rounded to nearest cent).

4. Terminalling Charge Revenue = $0.67/$m^3$ x 1 500 681 m^3
= $1,005,456.

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* See page 3 of Appendix II for determination of the Kerrobert terminal revenue requirement for the test year.

DETERMINATION OF TRANSPORTATION FUNCTION REVENUE REQUIREMENT

Total Revenue Requirement	$4,888,508
Less: Terminalling Charge Revenue	$1,005,456
Transportation Function Revenue Requirement	$3,883,052

ALLOCATION OF TRANSPORTATION FUNCTION REVENUE REQUIREMENTS AMONG CRUDE OIL RECEIPT POINTS

Receipt Point	Km.m^3 Factor	Condensate*	Undiluted Crude Oil*	Total
		$	$	$
Blackfoot	40.723	364,914	1,216,381	1,581,295
Dulwich	14.555	130,426	434,752	565,178
Furness	2.544	22,797	75,988	98,785
Lone Rock	20.270	181,638	605,457	787,095
Neilburg	12.064	108,104	360,347	468,451
Unity	9.844	88,211	294,037	382,248
Kerrobert	-	-	-	-
Total	100.000	$896,090	2,986,962	$3,883,052

* The transportation function revenue requirement was apportioned on the basis of a condensate to undiluted crude oil ratio of 0.3 to 1.0.

MANITO PIPELINES LTD.

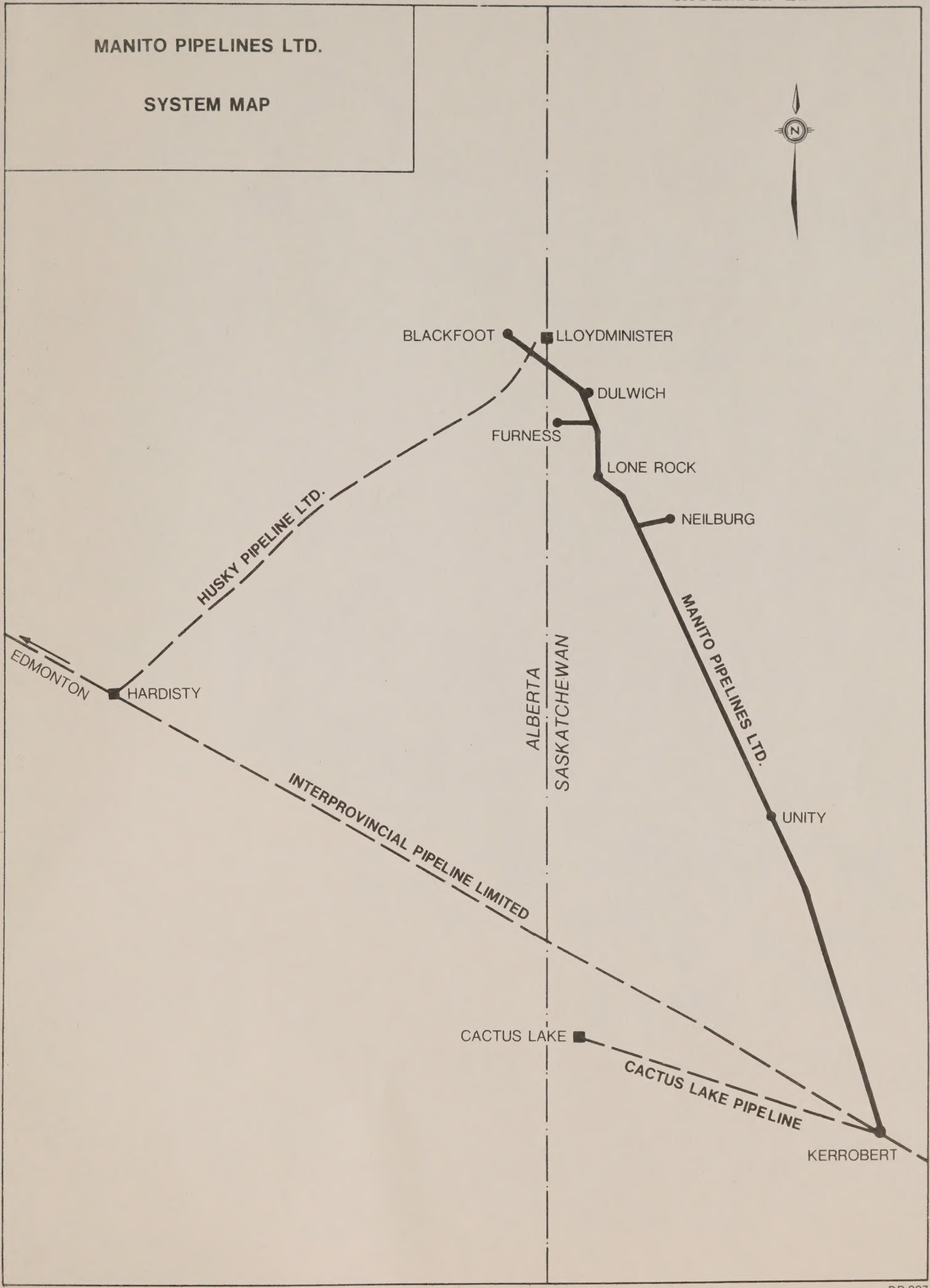
Kerrobert Terminal Revenue Requirement
For the Test Year 1 October 1982 to 30 September 1983

	Beginning of Year		End of Year
Plant in Service	$3,644,738		$4,534,738
Accumulated Depreciation	(521,905)		(646,786)
Net Transportation Plant in Service	$3,122,833		$3,887,952
Accumulated Deferred Income Taxes	(184,742)		(348,731)
Sub Total	$2,938,091		$3,539,221
Mid-Year Balance		$3,238,655	
Working Capital Allowance		12,220	
Rate Base		$3,250,875	

Cost of Service - Test Year

Operating Expenses	$ 178,414
Depreciation	124,882
Earned Return*	486,656
Income Tax Provisions, Excluding Surtax	208,443
Federal Surtax	3,226
Total Revenue Requirement	$1,001,621

* Approved rate of return of 14.97% x rate base.


MANITO PIPELINES LTD.
SYSTEM MAP
BLACKFOOT
LLOYDMINISTER
DULWICH
FURNESS
LONE ROCK
NEILBURG
HUSKY PIPELINE LTD.
MANITO PIPELINES LTD.
EDMONTON
HARDISTY
ALBERTA
SASKATCHEWAN
UNITY
INTERPROVINCIAL PIPELINE LIMITED
CACTUS LAKE
CACTUS LAKE PIPELINE
KERROBERT